Backfill

Bridal Bridge

Late last winter, Benson, Vt., builder Ted Kellogg convinced his bride-to-be that a brand-new covered bridge over the rocky stream behind his farmhouse would make a perfect spot for their summer nuptials. But as the big day approached, there was a minor problem: Thanks to an exhausting summer schedule of other work, the bridge they'd envisioned was still no more than a few sketches, a masonry pier, and a big pile of timbers. Undaunted, Kellogg rounded up a mostly-volunteer crew — including his son, his brother, his best man, and his fiancée — and made the sawdust fly.

Although a simple king-post design would have been adequate for the 24-foot span, Kellogg opted for a more visually pleasing Town lattice truss (named for its inventor, 19th century Connecticut architect Ithiel Town) instead. He laid out and assembled the first truss on an old concrete slab conveniently located near his shop — but a half-mile from the bridge site — using locally milled green hemlock 2x8s pegged together with 7/8-inch kiln-dried ash pegs (actually furniture blanks from a bankruptcy auction).

1. After laying each truss member in place, Kellogg bored three or four holes at each crossing point and fastened the assembly with kiln-dried ash pegs. The pegs swelled on contact with the green lumber, holding it solidly in place.

2. Strapped to a couple of hardwood skids, the first truss was dragged a half-mile to the bridge site — a laborious operation that was not repeated. The second truss was built on the banks of the stream, with juice for the power tools provided by a generator.

The competed truss was skidded to the bridge site, where a second was assembled the same way. Once the completed trusses were raised into position with the aid of an excavator, Kellogg and his helpers laid the 6x6 locust floor timbers and a plank floor.

It's sometimes claimed that covered bridges were roofed to keep the floorboards from becoming dangerously slick in the rain or to prevent horses from being spooked by the drop to the stream below. In fact, though, the purpose of the roof structure is to add stiffness and protect the vulnerable wooden trusses from the weather. The square cupola on Kellogg's bridge is a decidedly nontraditional touch. The snug 8x8 room within, heated by a small woodstove and accessed by a folding wooden ladder, serves as secluded, treehouse-like hideaway.

The entire project went surprisingly fast. Not including foundation work and assembly of the first truss, Kellogg says, the bridge was moved to the site and assembled in just eight days — more than a week before what was by all accounts a very successful ceremony. Piece of cake.

— Jon Vara

3. The completed trusses were eased into position with an excavator and supported by temporary braces while the bridge deck and roof structure were added. The far end of the span is supported by an outcropping of ledge leveled with a little concrete, and the near end by a concrete-block wall faced with stone from the site. The ends of the trusses rest on 4x12 slabs of rot-resistant white oak.

4. The almost-finished bridge (the bottom half of the trusses will eventually be protected by board siding) is as sturdy and useful as it is handsome. Kellogg reports that it easily bears the weight of a tractor carrying a load of firewood from his woodlot to the house.